SGD: $\mathbb{X}$ - train set.

$W_0 \sim \mathbb{N}(\ldots)$

mini batch. $\mathbb{X}$

$\underbrace{\mathbb{X}_i}_{} \sim 2^{\mathbb{X}}$ $\underline{\text{batch\_size}}$.

$W_{i+1} = W_i - \gamma \cdot \nabla_w L(W_i, X_i)$

GD

$X_i \in 2^{\mathbb{X}}$

$X_i \subset R^{128}$

$z \in R^{128}$

$h_1 = \psi_1(W_1^T z^{128})$

$W \in R^{128} \times R$

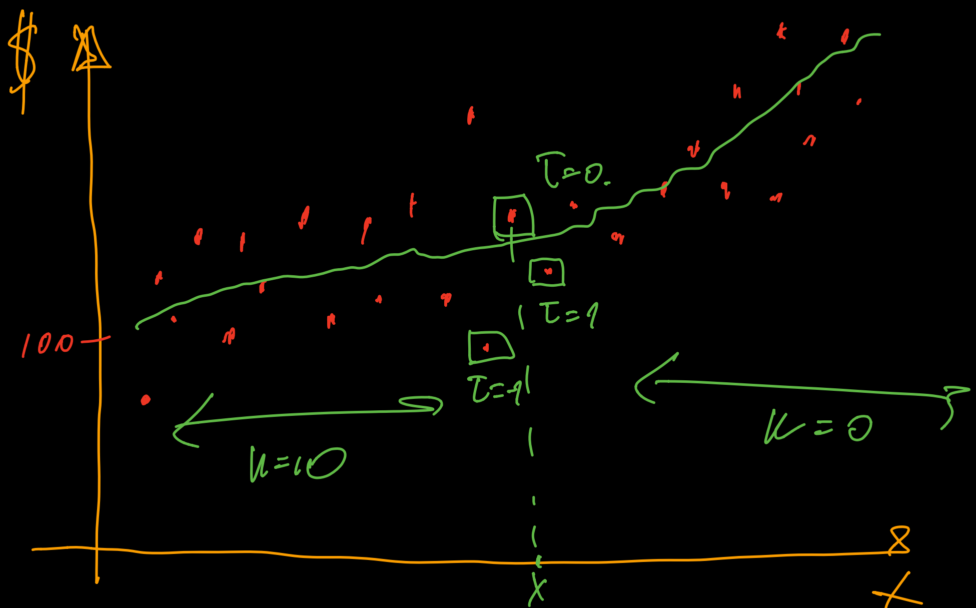
$h_2 = \psi_2(\underline{W_2^T \cdot h_1})$

$h_1 \in R^{64}$

$\vdots$

$h_n = \psi_n(W_n h_{n-1})$.

MLP.



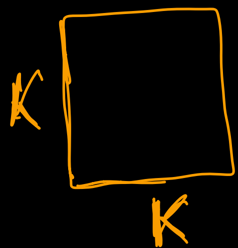

$$f : t \to \$$$

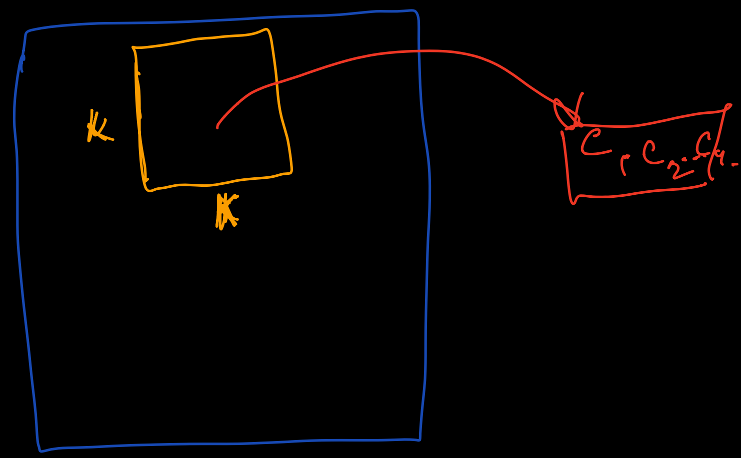
$$K : t \to k \qquad k \in \mathbb{R}.$$

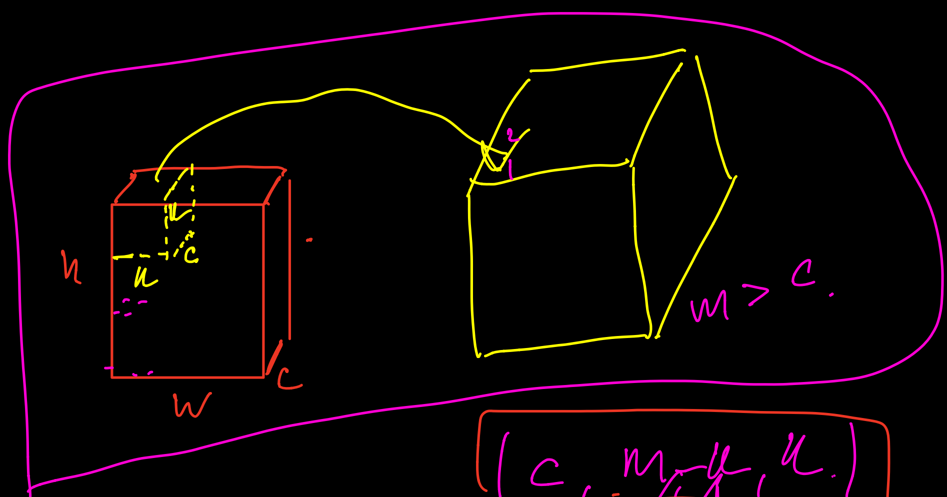
$$T = 10.$$

$$(f * K)(x). \qquad K =$$

$$\boxed{k = \begin{cases} \tau < -1, & 0 \\ \tau \in [-1, 1], & \frac{1}{3} \\ \tau > 1, & 0 \end{cases}}$$




( c , m , u , u. )